

# **Deception Creek Experimental Forest (Idaho)**

## **Introduction**

Deception Creek Experimental Forest is located in one of the most productive forests of the Rocky Mountains. When the forest was established in 1933, large, old western white pines were important for producing lumber products, matches, and toothpicks. Deception Creek is located in the heart of the western white pine forest type, allowing researchers to focus on the ecology and silviculture of western white pine and its associated species. The forest includes the entire drainage of Deception Creek, a tributary of the North Fork of the Coeur d'Alene River in northern Idaho. The area encompasses 1,425 ha, with elevations ranging from 850 to 1,402 m. Deception Creek dissects the experimental forest from west to east and is influenced by many small side drainages, giving rise to predominantly north- and south-facing slopes with slope angles ranging from 35 to 80 percent.

## **Climate**

Weather is influenced by the maritime climate of the Pacific Coast. Summers are short; autumn and winters are cloudy, with precipitation averaging 1,400 mm. Annual snowfall averages 4,060 mm or 25 percent of the total precipitation.

## **Soils**

Soils are primarily Typic Vitrandepts, which are volcanic ash (0.3 to 2 m deep) above Beltian metasediments.

## **Vegetation**

The western hemlock/queen cup beadrill potential vegetation type dominates the forest, with the grand fir/queen cup beadrill type also frequently occurring within Deception Creek. Mixed stands containing grand fir, western hemlock, Douglas-fir, western larch, and western white pine ranging in age from 20 to more than 250 years occur on the forest. Lodgepole pine, ponderosa pine, subalpine fir, Engelmann spruce, and western redcedar occur in small amounts across the forest. The



118-ha Montford Creek Research Natural Area is located within the forest.

## **Long-Term Data Bases**

There are data bases on forest growth (1935 to present), weather (1935 to 1965), and western white pine genetic trials (1955 to present).

## **Research, Past and Present**

Deception Creek was established as a center for silviculture research. Research on the forest applied both uneven- and even-age silvicultural systems. Regeneration was studied in these trials, as was cleaning and weeding. Much of the basic information used for managing western white pine was used to show how viewing systems using multiple spatial scales provides information for prioritizing management activities. Current studies are addressing sedimentation, forest genetics, root disease, small-diameter utilization, mass selection, and fire effects.

## **Major Research Accomplishments and Effects on Management**

Research at Deception Creek was important in understanding the ecology and management of western white pine. Basic research provided the basics for understanding moist northern Rocky Mountain forests

and changed the way coarse woody debris is managed throughout the Rocky Mountains. Deception Creek also played an important role in the development of blister-rust resistant western white pine. Similarly, long-term forest-growth records were integral for developing Prognosis, a forest vegetation simulator.

### **Collaborators**

Research collaborators have come to the Deception Creek from the University of Idaho, University of Montana, Washington State University, and USDA Forest Service Region 1, Idaho Panhandle National Forests.

### **Research Opportunities**

Deception Creek provides conditions for research that requires mixed stands ranging in age from 20 to more than 250 years. Because it is one of the most heavily roaded drainages in Idaho, the forest offers excellent

opportunities for studying road abandonment and rehabilitation. It also offers moist forest conditions found nowhere else in the West except on the Pacific Coast.

### **Facilities**

There are no facilities Deception Creek, which is 32 km east of Coeur d'Alene, Idaho.

Lat. 45°10' N, long. 116°30' W

### **Contact Information**

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